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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/873,250	06/05/2001	Yuichi Matsumoto	35.C15419	5978

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EXAMINER

JONES III, CLYDE H

ART UNIT	PAPER NUMBER
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2623

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/04/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 09/873,250	Applicant(s) MATSUMOTO ET AL.	
	Examiner Clyde H. Jones III	Art Unit 2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 October 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,5,6 and 9-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3, 5, 6 and 9-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1, 3, 5, 6, and 9-17 in the 10/10/2006 Remarks have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 3, 5, 6, and 9-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bertram (US 6,011,546) in view of Salle (US 5,530,869) and Tsai (US 5,986,586).

Regarding claim 1, 5, 13, 14, 15, 16, 17, Bertram teaches in an image processing apparatus 10-fig.1, comprising:

an image input unit for inputting an image signal 31-fig. 3;

a menu generation unit (user interface unit – fig. 10) for generating a menu image signal (col. 38, lines 13-19) representing an operation (user) menu (fig. 12; col. 38, lines 32-36) relating to processing (modifications) of the image signal (fig. 14-15; col. 41, lines 20-24,40-41) and having a plurality of menu portions at different hierarchical levels each including at least one menu item (fig. 12; col. 38, lines 13-26),

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and generating a registration menu image signal (fig. 16) representing a registration menu (a menu in which user selections are indicated, i.e., registered by the user interface) having a plurality of items (icons) corresponding to a plurality of function keys of an operating device (remote control/keyboard-20) (col. 41, lines 48-57; col. 37, lines 49-52; col. 41, lines 2-5; col. 9, lines 25-31);

a display control unit 39-fig. 4 for displaying on a same display screen of a display device an image corresponding to the image signal output from said image input unit and the operation menu corresponding to the menu image signal generated by said menu generation unit (fig. 14-18; col. 41, lines 20-24,46-48; col. 38, lines 30-33; col. 29, lines 30-45 with Audio DSP), wherein the menu portions at each hierarchical level are displayed stepwise (cascaded) (fig. 12) according to a selecting operation by the operating device for the menu items (col. 38, lines 47-50,13-27; col. 41, lines 31-33);

an instruction input unit 50-fig. 3 (5-fig. 10) for receiving an instruction from the operating device (col. 9, line 19-24) and a selection unit 39 for selecting a desired item in the operation menu displayed on said display screen (col. 9, lines 24-31); and

an assignment unit (UI engine; col. 37, lines 43-46,49-52) for assigning, according to a predetermined operation by the operating device, a function (menu item selection action) according to one set (combination) of items (col. 38, lines 55-56) selected by said selection unit at each hierarchical level in the operation menu to one of said plurality of function keys (col. 38, lines 40-42 in which user press a key on the remote to select a menu item in the hierarchy, e.g., changing the video image to "Weather", changing channels, etc.; col. 41, lines 46-54; in which the remote function

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keys/control selection operations of menu items in each hierarchy level are assigned programming functions enabling programming actions; col. 39, lines 5-6; in which a menu is list of actions, i.e., functions).

Bertram fails to teach with one-to-one correspondence between a plurality of functions according to a plurality of sets of items and said plurality of function keys.

In an analogous art Salle teaches in a hierarchical/cascaded menu system-fig. 1,3,4B (col. 3, lines 60-61; col. 6, lines 31-35,65-67) it is desirable to provide menu item (feature finder) selection functions/macros (col. 7, lines 1-6; col. 4, lines 51-52) according to a correspondence between of a plurality of sets of items (816-fig. 12; col. 4, lines 35-39; col. 6, lines 31-35; col. 7, line 65-col. 8, line 1) and plurality of function keys/shortcut-keys (814-fig. 12; col. 4, lines 33-35; col. 5, lines 45-49;; col. 9, lines 14-19,24-27) to provide fast user customized bypassing of selection levels (col. 9, lines 48-56) and to permit expert tailoring of the system for particular applications, i.e., functions (col. 5, lines 1-6).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the system of Bertram to include correspondence between a plurality of functions according to a plurality of sets of items and said function keys as taught by Salle for the advantage of providing a more efficient and user friendly interface (col. 9, lines 48-56) and to provide more advance tailoring of the system for particular functions (col. 5, lines 1-6).

However, Bertram in view of Salle fail to disclose with one-to-one correspondence.

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In an analogous art Tsai teaches in a macro procedure system with shortcut keys/hot keys (col. 1, lines 49-51) it is desirable to provide a plurality of hot keys 2-fig. 1 with one-to-one correspondence, i.e., dedicated, to a function/application (col. 2, lines 26-28,33-36) to execute chorded keystrokes (col. 2, lines 33-35) and to provide a more flexible and versatile operation device (col. 2, lines 38-39).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the system of Bertram in view of Salle to include with one-to-one correspondence as taught by Tsai for the advantage of increasing user convenience/comfort and providing a more versatile operation device (col. 2, lines 33-35; col. 2, lines 38-39).

Regarding claim 3 Bertram in view of Salle and Tsai teach said menu generation unit generates said registration menu image signal so that said registration menu is displayed adjacent to said operation menu (Bertram-col. 38, lines 52-56; col. 39, lines 18-25; in which user menus are cascaded with user selection/action registration menus and informational menus; Salle- col. 7, lines 1-6; col. 4, lines 51-52,66-67).

Regarding claim 6, Bertram in view of Salle and Tsai teach all of that which is discussed above with regards to claim 1. Bertram in view of Salle and Tsai do not, however, teach that the "assignment unit performs said assignment operation in response to the absence of any operation by said operating unit during a predetermined time period". The Bertram in view of Salle and Tsai references simply discusses the

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fact that any command/feature from any menu or submenu can be assigned to of the keys (Salle col. 4, lines 30-37; Bertram col. 9, lines 36-40).

The examiner takes OFFICIAL NOTICE that it is extensively well known in the art to make default settings after a certain time period of inactivity. Therefore, the examiner submits that it would have been obvious to one of ordinary skill in the art at the time of the invention to enable the virtual function buttons to be assigned by default if no button selection is made within a pre-determined time period. This would have been useful in allowing users to continue operation of the assignment functions as disclosed, in order to simplify the user task and perform the functions required of several buttons to achieve a specific function.

Regarding claim 9 Bertram in view of Salle and Tsai teach the operating unit comprises a remote control device 20 – Bertram fig. 1,2.

Regarding claim 10 Bertram in view of Salle and Tsai teach the menu generation unit includes a storage unit (memory/memory controller) for storing image data representing the operation menu (34,38,66-fig. 5 Bertram; col. 10, lines 58-63; col. 37, lines 43-57).

Regarding claim 11 Bertram in view of Salle and Tsai teach the menu generation unit includes a storage unit for storing character code and font data (menu text data that is displayed to the user) representing the operation mode to provide textual information

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to the user as disclosed (Bertram-col. 25, lines 3-10; col. 39, lines 18-20, lines 34-38; fig. 11; col. 40, lines 32-34).

Regarding claim 12 Bertram in view of Salle and Tsai teach the assignment unit includes a memory for storing code data representing functions assigned to the plurality of function keys (Bertram-col. 40, lines 55-58; fig. 10; col. 37, lines 40-54; Salle-col. 5, lines 45-53; col. 9, lines 48-50).

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Clyde H. Jones III whose telephone number is 571-272-5946. The examiner can normally be reached on 9-5:30 p.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Grant can be reached on 571-272-7294. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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